

**Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

AIR QUALITY PERMIT

Permittee Name: ATOFINA Chemicals, Inc.
Mailing Address: 4444 Industrial Parkway
Calvert City, Kentucky 42029

Source Name: ATOFINA Chemicals, Inc.
Mailing Address: 4444 Industrial Parkway
Calvert City, Kentucky 42029

Source Location: Kentucky Highway 1523, approximately one mile west
of the intersection of KY-1523 and KY-95, within the
Calvert City limits

Permit Type: Federally-Enforceable
Review Type: Synthetic Minor

Permit Number: F-00-021 (Revision 1)
Log Number: 54330
**Application
Complete Date:** January 30, 2002

KYEIS ID #: 21-157-00007
SIC Code: 2819, 2869

Region: Paducah
County: Marshall

Issuance Date: September 27, 2000
Expiration Date: September 27, 2005
Revision Date: XXXX, 2002

John S. Lyons, Director

DEP7001 (1-97)
Revised 06/18/99

Division for Air Quality

TABLE OF CONTENTS

<u>SECTION</u>		<u>DATE OF ISSUANCE</u>	<u>PAGE</u>
SECTION A	PERMIT AUTHORIZATION	September 27, 2000	1
SECTION B	EMISSION POINTS, EMISSIONS UNITS, APPLICABLE, REGULATIONS, AND OPERATING CONDITIONS	September 27, 2000	2
SECTION C	INSIGNIFICANT ACTIVITIES	September 27, 2000	30
SECTION D	SOURCE EMISSION, LIMITATIONS AND TESTING REQUIREMENTS	September 27, 2000	34
SECTION E	SOURCE CONTROL EQUIPMENT, OPERATING REQUIREMENTS	September 27, 2000	35
SECTION F	MONITORING, RECORD ,KEEPING, AND REPORTING REQUIREMENTS	September 27, 2000	36
SECTION G	GENERAL CONDITIONS	September 27, 2000	39
SECTION H	ALTERNATE OPERATING SCENARIOS	September 27, 2000	43
SECTION I	COMPLIANCE SCHEDULE	September 27, 2000	44

Rev #	Permit type	Log #	Complete Date	Issuance Date	Summary of Action
----	Initial Issuance	51435	7/27/00	9/27/00	Issue F-00-021
1	Significant revision	54330	1/28/02	XXX	Q5 - Increase Feed Rate A30,A31,A32 - Refrigerant Blending

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on July 27, 2000, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

INDEX OF EMISSION UNITS

<u>Emission Units</u>	<u>Page Number</u>
29 (6) HCl Storage Tanks TK-1	41
31 (8) HCl Storage Tanks TK-3, TK-4	41
87 (27) HCl Tank Car and Truck Loading	43
89 (1) HCl Barge Loading	43
A4 (10) HCl Storage Tanks TK-5, TK-6	41
B1 (01) Forane Neutralization Waste Acid Storage Tanks V-103, V-104	30
M9 (F03) Liquid Phase HCl Absorber and Tails Tower	7
P1 (F99) F-134a Wastewater Organic Emissions	34
Q1 (F56) Crude Gas Dryers DRYR-2305A, DRYR-2305B	16
Q3 (F8, F9) Primary And Secondary Gas Phase Reactor Superheaters	8
Q4 (F01) Boiler #4	24
Q5 (F02) Thermal Oxidizer	30a
Q6 (F02) Lights Column T-2309	17
Q7 (F02) (2) TCE Storage Tanks TK-5102, TK-XXXX	3
Q8 (F02) TCE Day Tank TK-2122	7
Q9 (F02) F-1122 Removal Sieves T-2315 A/B	21
R1 (F02) Gas Phase HCl Absorber and Tails Tower	13
R2 (F91) Waste Organics Storage Tank V-6103	19
S2 (F29) Caustic Waste Storage Tank TK-6901A	30
S3 (F31) Caustic Waste Storage Tank TK-6901B	30
S4 (F24) Caustic Blend Tank TK-6301	30
S5 (F25) Caustic Blend Tank TK-6302	30
S6 (F07) Emergency Power Diesel Generator	23
S7 (F28) Diesel Tank TK-4601	25
T1 (F03) (2) Waste Acid Storage Tanks TK-6903 and 6904	30
T2 (-) F-134a Pipeline Equipment	33
T4 (F32) Gas Phase Catalyst Charging	26
T5 (F41) Cooling Tower	26
T6,T7 NaOH Pipeline Equipment	30
T9 (13) 50% NaOH Storage Tank 1504	30
U1 (16) 23% NaOH Storage Tank 1409	30
U2 (F02) Crude Drums (V-2308, V-2309)	19
U3 (F02) Waste Acid Tank (V-6701)	19
U4 (F02) Waste Organic Tank (V-6702)	19
U5 Waste Acid Water Tank (V-6703)	19
U7 Emergency Blowdown Tank V-2219	15
U8 (F82) Chlorine Storage Tank V-5101	8
U9 Chlorine Feed Tank V-2106	8
V1 F-124 Purge Column	8

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Z2	HCl Storage Tank TK-2	41
A30-A32	Refrigerants Blending Area, F408a and F409a Refrigerants	29a

F-134a Plant—Raw Materials Feed

Q7 (F02) (2) TCE Storage Tanks (TK-5102,TK-XXXX)

Description: 300,000 gallons fixed-roof storage tank for trichloroethylene unloaded from barge, rail, or truck

Date constructed: 1995, 2000 (anticipated)

01 Working losses vented to TCE Vent Condenser

Controls: TCE Vent Condenser

02 Breathing losses vented to TCE Vent Condenser

Controls: TCE Vent Condenser

03 Working losses vented to F-134a Thermal Oxidizer

Controls: Q5 F-134a Thermal Oxidizer

04 Breathing losses vented to F-134a Thermal Oxidizer

Controls: Q5 F-134a Thermal Oxidizer

APPLICABLE REGULATIONS:

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall operate the closed vent system and F-134a Thermal Oxidizer in accordance with the most recently submitted Operating Plan approved by the division. [40 CFR 60.113b(c)(2)]

2. Emission Limitations:

See condition D.5 of SECTION D for annual VOC limit.

3. Testing Requirements: None

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the parameters of the closed vent system and F-134a Thermal Oxidizer in accordance with the submitted Operating Plan, unless the plan was modified by the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

division during the review process. In this case, the modified plan applies. [40 CFR 60.113b(c)(2)]

- b. The maximum true vapor pressure may be determined using available data on the storage temperature of the tanks. [40 CFR 60.116 (e)]
 - i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar- month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Q7 TCE Storage Tanks (continued)**

- ii. The vapor pressure may be obtained from standard reference texts, determined by ASTM Method D2879–83; or measured by an appropriate method approved by the Administrator; or calculated by an appropriate method approved by the Administrator.

5. Specific Recordkeeping Requirements:

- a. The permittee shall keep copies of all applicable records required by 40 CFR 60.116b and 40 CFR 60.115b (c) for at least 5 years, including a record of the measured values of the parameters monitored in accordance with the submitted Operating Plan after installing the closed vent system and control device. [40 CFR 60.115b (a) and (c)(2), Reporting and recordkeeping requirements, 40 CFR 60.116b (a), Monitoring of operations, and General Condition F.2 of SECTION F of this permit]
- b. The permittee shall keep the following information in readily accessible records for the life of the source: [40 CFR 60.115b (a), Reporting and recordkeeping requirements, 40 CFR 60.116b (a), Monitoring of operations]
 - i. The dimension of each tank and an analysis showing the capacity of each tank. . [40 CFR 60.116b (b)]
 - ii. A copy of the submitted Operating Plan. [40 CFR 60.115b (c)(1)]

6. Specific Reporting Requirements:

The permittee shall have submitted an Operating Plan containing the information listed below as an attachment to the notification required by 40 CFR 60.7(a)(1) for approval by the division. [40 CFR 60.113b(c)(1)]

- a. Documentation that the F-134a Thermal Oxidizer will be operated with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C (1500 °F).
- b. A description of the parameter or parameters to be monitored to ensure that the F-134a Thermal Oxidizer will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

7. Specific Control Equipment Operating Conditions:

- a. Each tank shall be equipped with a closed vent system and control device meeting the following specifications:
 - i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background, as determined by Reference Method 21 in accordance with 40 CFR 60.485 (b), and visual inspections. [40 CFR 60.112b (a)(3), Standard for volatile organic compounds (VOC)]
 - ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater.
- b. Each tank shall be vented to the Q5 F-134a Thermal Oxidizer at all times that the tank is being filled from a barge, railcar, or tank truck.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Each tank shall be vented to the TCE Vent Condenser at all times that the tank is in operation and is not vented to the Q5 F-134a Thermal Oxidizer.

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Raw Materials Feed

Q8 (F02) TCE Day Tank (V-2122)

Description: 3,231 gallon pressurized storage tank for trichloroethylene within F-134a process area

Date constructed: 1995

01 Pressure release venting

Controls: Q5 F-134a Thermal Oxidizer

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply.

1. **Operating Limitations:** None

2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:**
The tank shall be vented to the Q5 F-134a Thermal Oxidizer for the duration of each venting episode.

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Raw Materials Feed

U8 (F82) Chlorine Storage Tank (V-5101)

Description: 18,000 gallon pressurized horizontal tank for storage of chlorine unloaded from railcar, container, or tank truck

Date constructed: 1995

01 Pressure release venting to F-134a Emergency Vent Scrubber during railcar unloading

Controls: F-134a Emergency Vent Scrubber

U9 Chlorine Feed Tank (V-2106)

Description: 48 gallon pressurized horizontal tank for temporary storage of chlorine for feeding into process

Date constructed: 1995

01 Pressure release venting

Controls: F-134a Emergency Vent Scrubber

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply.

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Each tank shall be vented to the Emergency Vent Scrubber for the duration of each venting episode.

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**F-134a Plant—First Stage Reaction**

M9 (F03) Liquid Phase HCl Absorption and Tails Tower (T-2401, T-2402, EXCH-2405, T-2405)

Description: Recovery of HCl from First Stage HCl Column in Liquid Phase Reaction Area

Date constructed: 1995

01 Venting

Controls: F-134a Emergency Vent Scrubber

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations that produce any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, which commenced construction, modification, or reconstruction after December 30, 1983.

1. **Operating Limitations:** None

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:**

The column shall be vented to the F-134a Emergency Vent Scrubber at all times that the column is in operation.

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**F-134a Plant—Second Stage Reaction****Q3 (F08, F09) Primary and Secondary Gas Phase Reactor Superheaters (FIRE-2204, FIRE-2216)**

Description: Direct-fired superheaters

Primary fuel: natural gas

Rated capacity: 13 mmBtu/hr (total)

Date constructed: 1995, replaced 2000

01 Natural Gas fuel combustion

Controls: None

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for industrial-commercial-institutional steam generating units with a heat input capacity of 29 MW (100 mmBtu/hr) or less and 2.9 MW (10 mmBtu/hr) or greater which commenced construction, modification, or reconstruction after June 9, 1989.

1. **Operating Limitations:** None
2. **Emission Limitations:**
 - a. See condition D.1 of SECTION D for annual PM₁₀ limit.
 - b. See condition D.2 of SECTION D for annual SO₂ limit.
 - c. See condition D.3 of SECTION D for annual NO_x limit.
 - d. See condition D.4 of SECTION D for annual CO limit.
 - e. See condition D.5 of SECTION D for annual VOC limit.
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Record Keeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Second Stage Reaction

R1 (F02) Gas Phase HCl Absorption and Tails Tower (EXCH-6209, T-6207)

Description: Recovery of HCl from Second Stage HCl Column in Gas Phase Reaction Area

Date constructed: 1995

01 Venting to F-134a Emergency Vent Scrubber

Controls: F-134a Emergency Vent Scrubber

02 Venting to F-134a Thermal Oxidizer

Controls: Q5 F-134a Thermal Oxidizer

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations that produce any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, which commenced construction, modification, or reconstruction after December 30, 1983.

1. **Operating Limitations:** None
2. **Emission Limitations:**
 - a. See condition D.4 of SECTION D for annual CO limit.
 - b. See condition D.5 of SECTION D for annual VOC limit.
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:**

The column shall be vented to the Q5 F-134a Thermal Oxidizer or the F-134a Emergency Vent Scrubber at all times that the column is in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Second Stage Reaction

U7 Emergency Blowdown Tank (V-2219)

Description: Storage tank to receive material from emergency vents in F-134a Plant

Date constructed: 1995

01 Venting

Controls: F-134a Emergency Vent Scrubber

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply.

1. **Operating Limitations:** None

2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:**
The tank shall be vented to either the process or the F-134a Emergency Vent Scrubber at all times that the tank is in operation.

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Product Purification

Q1 (F56) (2) Crude Gas Dryers

Description: Regeneration of dryer beds by volatilizing adsorbed water and organics

Date constructed: 1995

01 Dryer regenerations

Controls: None

APPLICABLE REGULATIONS:

None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:**
The permittee shall retain records of the following information, except as specified in SECTION I of this permit:
 - a. Number of regenerations each month.
 - b. Results of any performance tests used to determine emissions per regeneration.
6. **Specific Reporting Requirements:**
The permittee may submit to the Division a request to change the emission factors in the KYEIS for this affected facility to reflect the results of any new performance test used to determine emissions per regeneration.
7. **Specific Control Equipment Operating Conditions:** N/A
8. **Alternate Operating Scenarios:** None
9. **Compliance Schedule:**
See SECTION I – COMPLIANCE SCHEDULE.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Product Purification

Q6 (F02) Lights Column (T-2309)

Description: Distillation column for purification of crude F-134a

Date constructed: 1995

01 Venting

Controls: Q5 F-134a Thermal Oxidizer

V1 F-124 Purge Column

Description: Distillation for collection and purging of F-124 from Product Purification Area

Date constructed: 1995 and after

01 Venting

Controls: Q5 F-134a Thermal Oxidizer

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart NNN, Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations that produce any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, which commenced construction, modification, or reconstruction after December 30, 1983.

1. **Operating Limitations:** None
2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

Each column shall be vented to the Q5 F-134a Thermal Oxidizer at all times that the column is in operation.

8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Product Purification

R2 (F91) Waste Organics Storage Tank (V-6103)

Description: 23,300 gallon pressurized vessel for storage of waste organics

Date constructed: 1995

01 Pressure release venting

Controls: Q5 F-134a Thermal Oxidizer

U2 (F02) (2) Crude Drums (V-2308, V-2309)

Description: Pressurized vessels to control surges between product washing, drying, and liquefaction.

Date constructed: 1995

01 Purging of N₂ and organics

Controls: Q5 F-134a Thermal Oxidizer

U3 (F02) Waste Acid Tank (V-6701, EXCH-6701)

Description: 600 gallon pressurized vessel for storage of other F-134a equipment material during maintenance of that equipment.

Date constructed: 1995

01 Venting of stored material to F-134a Thermal Oxidizer

Controls: Q5 F-134a Thermal Oxidizer

02 Venting of stored material to F-134a Emergency Vent Scrubber

Controls: F-134a Emergency Vent Scrubber

U4 (F02) Waste Organic Tank (V-6702)

Description: 600 gallon pressurized vessel for storage of other F-134a equipment material during maintenance of that equipment.

Date constructed: 1995

01 Venting of stored material

Controls: Q5 F-134a Thermal Oxidizer

U5 Waste Acid Water Tank (V-6703)

Description: 100 gallon pressurized vessel for storage of condensed liquid from EXCH-6701

Date constructed: 1995

01 Venting

Controls: F-134a Emergency Vent Scrubber

APPLICABLE REGULATIONS:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 does not apply.

1. **Operating Limitations:** None

2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:**
Each tank shall be vented to the process, the Q5 F-134a Thermal Oxidizer, or the Emergency Vent Scrubber (as applicable) at all times that the tank is in operation.

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Product Purification

Q9 (F02) F-1122 Removal Sieves (T-2315A, T-2315B)

Description: Regeneration of sieves by volatilizing adsorbed organics

Date constructed: 1995

01 Removal Sieve Regeneration

Controls: Q5 F-134a Thermal Oxidizer

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:** None

2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**
The permittee shall retain records of the following information:
a. Number of regenerations each month.
b. Results of any performance tests used to determine emissions per regeneration.

6. **Specific Reporting Requirements:**
The permittee may submit to the Division a request to change the emission factors in the KYEIS for this affected facility to reflect the results of any new performance test used to determine emissions per regeneration.

7. **Specific Control Equipment Operating Conditions:**
The affected facility shall be vented to the Q5 F-134a Thermal Oxidizer for the duration of each regeneration.

8. **Alternate Operating Scenarios:** None

9. **Compliance Schedule:**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

See SECTION I – COMPLIANCE SCHEDULE.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant

S6 (F07) Emergency Electric Generator
01 Diesel fuel combustion

Description: Provide backup electricity to F-134a Plant
Primary fuel: diesel, 7000 Btu/hp-hr
Rated capacity: 500 kW (0.469mmBtu/hr, based on 7000 Btu/hp-hr)
Date constructed: 1995
Controls: None

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

The generator shall not be operated more than 500 hours per year, for any consecutive 12-month period.

Compliance Demonstration Method:

Compliance shall be demonstrated by quarterly calculations of the total hours operated for the previous 12 months.

2. Emission Limitations:

- See condition D.1 of SECTION D for annual PM₁₀ limit.
- See condition D.2 of SECTION D for annual SO₂ limit.
- See condition D.3 of SECTION D for annual NO_x limit.
- See condition D.4 of SECTION D for annual CO limit.
- See condition D.5 of SECTION D for annual VOC limit.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

- a. The permittee shall keep records of the monthly hours of operation.
- b. The permittee shall keep records of the quarterly calculations for 5 years from the date of generation.

6. Specific Reporting Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. **Specific Control Equipment Operating Conditions:** N/A

8. **Alternate Operating Scenarios:** None

9. **Compliance Schedule:**
See SECTION I – COMPLIANCE SCHEDULE.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant

S7 (F28) Diesel Tank (TK-4601)

Description: Storage tank for diesel fuel for Emergency Generator

Date constructed: 1995

Controls: None

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:** None
2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** N/A
8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant

T4 (F32) Gas Phase Catalyst Charging

Description: Portable charging bin for loading solid catalyst into Gas Phase reactors

Date constructed: 1995

Controls: Bag filter

APPLICABLE REGULATIONS:

401 KAR 59:010, New Process Operations

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:** None

2. **Emission Limitations:**

- a. See condition D.1 of SECTION D for annual PM₁₀ limit.
- b. Particulate emissions shall not exceed its calculated allowable as determined by the following equation for the duration of each charging episode: [401 KAR 59:010, Section 3(2), Appendix A]

$$E_{Allowable} = 3.59 * P^{0.62}$$

where $E_{Allowable}$ = Allowable rate of particulate emissions, lb/hr

3.59 = Equation factor

P = Process weight rate of catalyst loaded into the reactors, tons/hr, equal to the batch charging rate, tons/batch, divided by batch hours of operation, hr/batch

Compliance Demonstration Method:

The permittee shall determine compliance for each charging episode by comparing the actual particulate emissions rate (E_{Actual}) calculated using the following equation to the allowable particulate emissions rate ($E_{Allowable}$) calculated using the above equation:

$$E_{Actual} = P * EF * (1 - \text{bag filter efficiency})$$

where E_{Actual} = Actual rate of particulate emissions, lb/hr

EF = Particulate emission factor listed in KYEIS, lb PM₁₀ emitted/ton product

P = Process weight rate of catalyst loaded into the reactors, tons/hr, equal to the batch loading rate, tons/batch, divided by batch hours of operation, hr/batch

- c. Visible emissions from each affected facility shall not equal or exceed 20% opacity on a 6-minute

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

average basis. [401 KAR 59:010, Section 3(1)(a)]

Compliance Demonstration Method:

Compliance shall be demonstrated by one visible emissions observation during each charging episode.

3. Testing Requirements: None**4. Specific Monitoring Requirements:**

The permittee shall perform a Method 22 visible emission test once during each charging episode.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the compliance calculations.
- b. The permittee shall maintain a log of the results of each baghouse maintenance inspection.
- a. The permittee shall maintain records of the batch loading rates for each charging episode.
- b. The permittee shall maintain records of the manufacturers' specifications and/or standard operating procedures for the bag filter onsite at all times.
- c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of any affected facility or air pollution control device. [401 KAR 59:005, Section 3 (2)]
- d. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of any affected facility or air pollution control device. [401 KAR 59:005, Section 3 (2)]
- e. The permittee shall maintain a log of the dates and times of each Method 22 test and either the results of the test (noting color, duration, density (dark or light), and cause) or reasons for not performing a Method 22 test.

6. Specific Reporting Requirements:

- a. The permittee shall submit the results of the compliance calculations with the reports required in General Condition F.5. in SECTION F.
- b. The permittee shall furnish the cabinet written notification of any physical or operational change which may increase the hourly emission rate of any air pollutant to which a standard applies. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The permittee shall also submit any additional relevant information subsequent to this notice that the Division may request. [401 KAR 59:005, Section 3(1)(d)]

7. Specific Control Equipment Operating Conditions:

- a. The bag filter shall be operated in accordance with manufacturer's recommended operating procedures for the duration of each charging episode.
- b. The permittee shall perform a maintenance inspection of the bag filter within the 5 calendar days

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

before the start of each charging episode in order to ensure that the bag filter will operate in accordance with manufacturer's recommended operating procedures.

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant

T5 (F41) Cooling Tower

Description: Cooling of F-134a process water

Date constructed: 1995

Controls: None

APPLICABLE REGULATIONS:

401 KAR 63:010 for cooling tower

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

The permittee shall operate the cooling tower in accordance with the applicable requirements in 401 KAR 63:010, Section 3, Standards for Fugitive Emissions.

2. Emission Limitations:

See condition D.1 of SECTION D for annual PM₁₀ limit.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

None

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

8. Alternate Operating Scenarios:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant—Control Devices

Q5 (F02) Thermal Oxidizer

Description: Air pollution control system equipment in series:

Thermal Oxidizer

Quench

Venturi Scrubber CE-F02-01

Packed Scrubber CE-F02-02

Packed Scrubber CE-F02-03

Primary fuel: natural gas

Rated capacity: 6 mmBtu/hr

Date constructed: 1995

01 Natural Gas Fuel Combustion

Controls: None

APPLICABLE REGULATIONS:

None

NON-APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality

401 KAR 59:020, New Incinerators

1. Operating Limitations:

- a. The thermal oxidizer shall be operated and maintained in accordance with the most recently submitted Operation and Maintenance Manual approved by the Division.
- b. The thermal oxidizer shall be operated in accordance with the following conditions or the waste feed shall be immediately shut off:
 - i. The combustions chamber temperature shall be between 2100°F and 2600°F at all times.
 - ii. The waste gas feed rate shall be at or below 6,500 lb/hr at all times.
Compliance Demonstration Method:
Continuous compliance will be determined by each monitoring system measurement.
 - iii. The stack gas CO concentration shall be less than 100 ppm, based on a one-hour rolling average.
 - iv. Continuous compliance will be determined by one-hour average values of the monitoring system measurements.

2. Emission Limitations:

- a. See Condition D.1 of SECTION D for annual PM₁₀ limit.
- b. See Condition D.2 of SECTION D for annual SO_x limit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. See Condition D.3 of SECTION D for annual NO_x limit.
- d. See Condition D.4 of SECTION D for annual CO limit.
- e. See Condition D.5 of SECTION D for annual VOC limit.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall install, calibrate, operate and maintain the following monitoring devices and an automated data acquisition and handling system to determine compliance with the operating limitations for each hour that the thermal oxidizer is operating with waste gas is being fed to it:

- a. A thermocouple to monitor the combustion chamber temperature.
- b. A mass flowmeter to monitor the waste fee stream mass flowrate.

Q5 F-134a Thermal Oxidizer (continued)

- c. A CO continuous monitoring system (CMS) to monitor the stack gas CO concentration.
- d. The system shall take measurements at least every 15 minutes for each operating parameter, and
- e. The system shall calculate one-hour rolling averages of the 15-minute measurements of stack gas CO concentration.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

- a. All 15-minute (or shorter) measurements and one-hour rolling averages taken or calculated by the monitoring system.
- b. All monitoring system performance evaluations and calibration checks.
- c. Any maintenance performed on the thermal oxidizer.
- d. The dates, times and duration of each episode of any deviation from the operating limitations, including the nature and cause of the deviation and the results of any corrective action taken.
- e. The Operation and Maintenance manual for the thermal oxidizer required to be submitted by permit F-98-023 (Revision), issued November 6, 1998, and revised January 12, 2000. The Operation and Maintenance manual shall include preventative maintenance procedures, percent on-line time, operation guidance, and methods, procedures and error tolerances for calibration.

6. Specific Reporting Requirements:

- a. The permittee shall report any modification to the monitoring system.
- b. The permittee shall submit with the semi-annual reports required in General Condition F.5 of SECTION F of this permit, a report of the dates, times and durations of each episode of any deviation from the operating limitations, including the nature and cause of the deviation and the results of any corrective action taken.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Compliance Schedule:

See SECTION I – COMPLIANCE SCHEDULE

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

F-134a Plant

T2 (-) F-134a Pipeline Equipment

Description: Fugitive emissions from pipeline equipment components

Date constructed: 1995

01 LL Valves

02 V Valves

03 Flanges

04 Pumps

05 Open-ended Lines

06 Compressor Seals

Controls: None

P1 (F99) F-134a Wastewater Transfer System

Description: Fugitive organic emissions from equipment used to transfer wastewater from the F-134a Plant to facility-wide treatment systems

Date constructed: 1995

Controls: None

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry that commences construction or modification after January 5, 1981.

40 CFR 60, Subpart H, National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

1. **Operating Limitations:** None

2. **Emission Limitations:**
See condition D.5 of SECTION D for annual VOC limit.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements: None
7. Specific Control Equipment Operating Conditions: N/A
8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Facility-wide--Boilers

Q4 (F01) Boiler #4

Description: Indirect heat exchanger

Primary fuel: natural gas

Backup fuel: #2 fuel oil

Rated capacity: 82.89 mmBtu/hr

Date constructed: 1996

01 Natural Gas fuel combustion

Controls: Low NO_x burner

02 #2 Fuel Oil fuel combustion

Controls: Low NO_x burner

APPLICABLE REGULATIONS:

401 KAR 59:005, General provisions

401 KAR 59:015, New indirect heat exchangers constructed on or after April 9, 1972

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, Standards of performance for industrial-commercial-institutional steam generating units with a heat input capacity of 29 MW (100 mmBtu/hr) or less and 2.9 MW (10 mmBtu/hr) or greater which commenced construction, modification, or reconstruction after June 9, 1989.

Non-applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality

1. **Operating Limitations:** None

2. **Emission Limitations:**

Particulate standards:

The following requirements apply while combusting any fuel in Boiler #4:

- a. See condition D.1 of SECTION D for annual PM₁₀ limit.
- b. The permittee shall not cause to be discharged into the atmosphere from Boiler #4 particulate matter in excess of 0.10 lb/mmBtu actual heat input, based on a 3-hour average. [401 KAR 59:015, Section 4 (1)(b), Standard for Particulate Matter]

Compliance Demonstration Method:

Boiler #4 is assumed to be in compliance at all times that only natural gas or fuel oil is combusted.

Opacity standards:

The following requirements apply while combusting any fuel in Boiler #4:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The permittee shall not cause to be discharged into the atmosphere from Boiler #4 emissions which exhibit greater than twenty (20) percent opacity, based on a 6-minute average, except as allowed by 401 KAR 59:015, Section 4(2)(b) and (c). [401 KAR 59:015, Section 4 (2), Standard for Particulate Matter]

Compliance Demonstration Method:

- i. Compliance will be determined using Reference Method 9 testing during natural gas combustion. Boiler #4 is assumed to be in continuous compliance between reference method testing at all times that only natural gas is combusted.
- ii. Boiler #4 is assumed to be in compliance at all times that #2 fuel oil is combusted and the boiler is in compliance with the 40 CFR 60, Subpart Dc opacity standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Q4 (F01) Boiler #4 (continued)**

The following requirements apply only while combusting #2 fuel oil in Boiler #4:

- d. On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from Boiler #4 any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. This standard applies at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c (c) and (d), Standard for particulate matter]

Compliance Demonstration Method:

Compliance will be determined using Reference Method 9 testing during #2 fuel oil combustion. Boiler #4 is assumed to be in continuous compliance between reference method testing at all times that only #2 fuel oil is combusted

Sulfur Dioxide standards:

The following requirements apply while combusting any fuel in Boiler #4:

- e. See condition D.2 of SECTION D for annual SO₂ limit.
- f. The permittee shall not cause to be discharged into the atmosphere from Boiler #4 any gases which contain sulfur dioxide in excess of 0.8 lb/mmBtu actual heat input, based on a 3-hour average, and based on the total heat input of all fuels burned. [401 KAR 59:015, Section 5 (1)(b) and (3), Standard for Sulfur Dioxide]

Compliance Demonstration Method:

- i. Boiler #4 is assumed to be in compliance at all times that only natural gas is combusted.
- ii. Boiler #4 is assumed to be in compliance at all times that #2 fuel oil is combusted and the boiler is in compliance with the weight percent sulfur standard.

The following requirements apply only while combusting #2 fuel oil in Boiler #4:

- g. On and after the date on which the initial performance test is completed or required to be completed under 40 CFR 60.8, whichever date comes first, the permittee shall not combust oil in Boiler #4 that contains greater than 0.5 weight percent sulfur. This limit applies at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c (d), (i), and (j), Standard for sulfur dioxide]

Compliance Demonstration Method:

- i. Initial compliance shall be determined based on fuel supplier certifications. [40 CFR 60.44c (h), Compliance and performance test methods and procedures for sulfur dioxide]
- ii. Continuous compliance shall be determined based on fuel supplier certifications. [40 CFR 60.42c (h)(1), Standard for sulfur dioxide, 40 CFR 60.46c (e), Emission monitoring for sulfur dioxide]

Other standards:

The following requirements apply while combusting any fuel in Boiler #4:

- h. See condition D.3 of SECTION D for annual NO_x limit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. See condition D.4 of SECTION D for annual CO limit.
- j. See condition D.5 of SECTION D for annual VOC limit.

3. Testing Requirements:

- a. The permittee shall conduct Reference Method 9 performance tests (with a 6-minute average of 24 observations) during natural gas combustion to determine the opacity of stack emissions: [401 KAR 59:015, Section 8 (1)(f) Test Methods and Procedures]
 - i. Annually, and
 - ii. As requested by the division.
- b. The permittee shall conduct Reference Method 9 performance tests (with a 6-minute average of 24 observations) during #2 fuel oil combustion to determine the opacity of stack emissions: [401 KAR 59:015, Section 8 (1)(f) Test Methods and Procedures; 40 CFR 60.45c (a) and (a)(7), Compliance and performance test methods and procedures for particulate matter]
 - i. Initially, as required under 40 CFR 60.8
 - ii. Annually, and
 - iii. As requested by the division.

Q4 (F01) Boiler #4 (continued)

- c. Within 60 days after achieving the maximum production rate at which Boiler #4 will be operated, but not later than 180 days after initial start-up of such facility, the permittee shall have conducted performance tests on Boiler #4 for NO_x and opacity and demonstrate compliance to a duly authorized representative of the Division.

4. Specific Monitoring Requirements:

- a. The permittee shall determine the heating value of natural gas annually. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.
- b. The permittee shall determine the heating value of #2 fuel oil for each shipment of #2 fuel oil. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.
- c. The permittee shall obtain a fuel supplier certification for each shipment of #2 fuel oil.

5. Specific Recordkeeping Requirements:

- a. The permittee shall record and maintain records of the amounts of each fuel combusted during each day. [40 CFR 60.48c (g), Reporting and recordkeeping requirements]
- b. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of Boiler #4; any malfunction of the air pollution control equipment; or any periods during which a monitoring device is inoperative. [401 KAR 59:005, Section 3 (2). Notification and Recordkeeping]
- c. The permittee shall maintain a file of all measurements, including monitoring device and performance testing measurements; all monitoring device calibration checks; adjustments and maintenance performance on these systems or devices; and all other required information

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

recorded in a permanent form suitable for inspection. All records required under this section shall be maintained by the permittee for a period of 5 years following the date of such record. [401 KAR 59:005, Section 3 (4). Notification and Recordkeeping; 40 CFR 60.48c (i); and General Condition F.2 of SECTION F of this permit]

- d. The permittee shall keep records of the following information for #2 fuel oil combustion: [40 CFR 60.48c (e), Reporting and recordkeeping requirements]
 - i. Calendar dates covered in the reporting period. [40 CFR 60.48c (e)(1)]
 - ii. Records of fuel supplier certification including the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [40 CFR 60.48c (e)(11), 40 CFR 60.48c f(1)]

6. Specific Reporting Requirements:

- a. The permittee shall have submitted notification of the date of construction, anticipated startup, and actual startup. This notification shall include: [40 CFR 60.7, 40 CFR 60.48c (a)]
 - i. The design heat input capacity of Boiler #4 and identification of fuels to be combusted in Boiler #4. [40 CFR 60.48c (a)(1)]
 - ii. The annual capacity factor at which the permittee anticipates operating Boiler #4 based on all fuels fired and based on each individual fuel fired. [40 CFR 60.48c (a)(3)]
- b. The permittee shall furnish the division with written notification as follows: [401 KAR 59:005, Section 3 (1)(a)-(d), Notification and Recordkeeping]
 - i. A notification of the date that construction, reconstruction, or modification of Boiler #4 is commenced, postmarked no later than thirty (30) days after such date
 - ii. A notification of the anticipated date of initial startup of Boiler #4 postmarked not more than sixty (60) days nor less than thirty (30) days prior to such date
 - iii. A notification of the actual date of initial startup of Boiler #4 postmarked within fifteen (15) days after such date, and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Q4 (F01) Boiler #4 (continued)**

- iv. A notification of any physical or operational change to Boiler #4 which may increase the emission rate of any air pollutant to which a standard applies unless the change is specifically exempted in 40 CFR 60.7(a)(4). This notice shall be postmarked sixty (60) days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The division may request additional relevant information subsequent to this notice.
- c. The permittee shall submit to the division the performance test data from the initial and any subsequent performance tests for #2 fuel oil combustion. [40 CFR 60.48c (b), Reporting and recordkeeping requirements]
- d. The permittee shall submit reports including the following information for #2 fuel oil combustion. The reporting period is each six-month period. All reports shall be submitted to the division and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.48c (d), (e) and (j), Reporting and recordkeeping requirements]
 - i. Calendar dates covered in the reporting period. [40 CFR 60.48c (e)(1)]
 - ii. Records of fuel supplier certification including the name of the oil supplier, a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c, and a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [40 CFR 60.48c (e)(11), 40 CFR 60.48c f)(1)]

7. **Specific Control Equipment Operating Conditions:** N/A

8. **Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Blend Area

29 (6) HCl Storage Tank (TK-1)

Description: 100,000 gallon fixed-roof tank for 36% HCl storage

Date constructed: 1991

01 Venting

Controls: Packed scrubber

31 (8) (2) HCl Storage Tanks (TK-3, TK-4)

Description: 200,000 gallon fixed-roof tanks for 36% HCl storage

Date constructed: 1974, 1978

01 Venting

Controls: Shared packed scrubber

A4 (4) (2) HCl Storage Tanks [TK-5 (TK-109), TK-6 (TK-110)]

Description: 300,000 gallon fixed-roof tanks for 36% HCl storage

Date constructed: 1981

01 Venting

Controls: Shared packed scrubber

Z2 (--) HCl Storage Tank (TK-2)

Description: 300,000 gallon fixed-roof tank for 36% HCl storage

Date constructed: 1999

01 Venting

Controls: Packed scrubber

APPLICABLE REGULATIONS:

None

Non-applicable Regulations:

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements: None
6. Specific Reporting Requirements: None
7. Specific Control Equipment Operating Conditions: None
8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Blend Area****87 (27) HCl Railcar and Tank Truck Loading**

Description: Multiple stations for loading of 36% HCl into railcars and tank trucks

Date constructed: 1981, 2000 (anticipated)

01 Displacement of HCl vapors during loading

Controls: Packed spray scrubber

89 (27) HCl Barge Loading

Description: Station for loading of 36% HCl into barges

Date constructed: 1981

01 Displacement of HCl vapors during loading

Controls: Packed spray scrubber

APPLICABLE REGULATIONS:

None

- | | |
|---|------|
| 1. <u>Operating Limitations:</u> | None |
| 2. <u>Emission Limitations:</u> | None |
| 3. <u>Testing Requirements:</u> | None |
| 4. <u>Specific Monitoring Requirements:</u> | None |
| 5. <u>Specific Recordkeeping Requirements:</u> | None |
| 6. <u>Specific Reporting Requirements:</u> | None |
| 7. <u>Specific Control Equipment Operating Conditions:</u> | None |
| 8. <u>Alternate Operating Scenarios:</u> | None |

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Blend Area – Refrigerant Blends Transloading, Receiving and Loading

A30 (A30) R-22 Transloading (Receiving) and F-124 Receiving

Description: Line clearing losses due to refrigerant unloading

Rated Capacity: 356,000 lbs/day refrigerants received

Date constructed: 2002 (modification of existing affected facilities)

01 R-22 Transloading (Receiving)

Controls: None

02 F-124 Receiving

Controls: None

A31 (A31) R-22 Transloading (Loading) and Blends F-408a and F-409a Loading

Description: Displacement losses due to refrigerant loading

Rated Capacity: 356,000 lbs/day refrigerants loaded

Date constructed: 2002 (modification of existing affected facilities)

01 R-22 Transloading (Loading)

Controls: None

02 Blend F-408a Loading

Controls: None

03 Blend F-409a Loading

Controls: None

A32 (A32) Receiving and Loading Stations – New Fugitive Emissions Components

Description: New fugitive emission components

Rated Capacity: NA

Date constructed: 2002

01 New Fugitive Emissions Components

Controls: None

Note: Other refrigerant blends will be processed at the facility as a result of this modification. None of these other blends contain or emit VOC, ODS, or any other regulated air pollutant. Therefore, these non-regulated blends are not addressed in this permit.

APPLICABLE REGULATIONS:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

None

NON-APPLICABLE REGULATIONS:

401 KAR 51:017, Prevention of Significant Deterioration of Air Quality

40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry that commences construction or modification after January 5, 1981.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Blend Area – Refrigerant Blends Transloading, Receiving and Loading (continued)

1. Operating Limitations:

a. To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, throughputs of the following refrigerants shall not exceed the specified limits for any consecutive 12-month period.

- i. R-22 transloading (receiving) - 10 million lbs/yr
- ii. F-124 receiving - 0.5 million lbs/yr
- iii. R-22 transloading (loading) - 10 million lbs/yr
- iv. Blend F-408a loading - 1 million lbs/yr
- v. Blend F-409a loading - 1.3 million lbs/yr

Compliance Demonstration Method:

Compliance will be determined by recording the amount of each of the above refrigerants loaded and unloaded each month, and performing monthly calculations of the totals for the previous 12-month period.

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

Retain records of the amount of each of the above refrigerants loaded and unloaded each month, and the results of the monthly calculations of the totals for the previous 12-month period

6. Specific Reporting Requirements:

None

7. Compliance Schedule:

NA

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. S2 (F29) 9,400 gals Caustic Waste Storage Tank (TK-6901A) 60, Subpart Kb	exempt from 40 CFR
2. S3 (F31) 9,400 gals Caustic Waste Storage Tank (TK-6901B) 60, Subpart Kb	exempt from 40 CFR
3. S4 (F24) 20,303 gals Caustic Blend Tank (TK-6301) 60, Subpart Kb	exempt from 40 CFR
4. S5 (F25) 20,303 gals Caustic Blend Tank (TK-6302) 60, Subpart Kb	exempt from 40 CFR
5. T1 (F03) (2) 20,000 gals Waste Acid Storage Tanks (TK-6903,6904) 60, Subpart Kb	exempt from 40 CFR
6. B1 (2) 25,000 gals Forane Neutralization Waste Acid Tanks (V-103/104) 60, Subpart Kb	exempt from 40 CFR
7. T9 (13) 300,000 gals 50% NaOH Storage Tank (1504) Subpart Kb	exempt from 40 CFR 60,
8. U1 (16) 12,282 gals 23% NaOH Storage Tank (1409) 60, Subpart Kb	exempt from 40 CFR
9. T6, T7 NaOH Pipeline Equipment Subpart VV	exempt from 40 CFR 60, exempt from 40 CFR 63, Subpart H
10. 20,306 gals Scrubber Liquid Storage Tank Kb	exempt from 40 CFR 60, Subpart
11. Catalyst Activation with Nitrogen/HF	None
12. Gas Phase HCl Absorber Pump Tank	exempt from 40 CFR 60, Subpart

SECTION C - INSIGNIFICANT ACTIVITIES

Kb

13. Antimony Pentachloride Feed Tank

None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

GROUP REQUIREMENTS:

1. Emission Limitations:

- a. Total annual emissions of PM₁₀ from the emission units listed in SECTION B of this permit shall be less than or equal to 13.5 TPY for any consecutive 12-month period in order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

Compliance Demonstration Method:

Compliance shall be determined by quarterly calculations using the following equation including all emission units listed in SECTION B which emit PM₁₀:

$$\text{Annual PM}_{10} \text{ emissions (tons/yr)} = S [\text{emission unit monthly process rate (SCC units/mo)} \times \text{KYEIS PM}_{10} \text{ emission factor (lb/SCC unit)} \times \text{ton/2000 lb} \times (1 - \text{PTE control efficiency})] \text{ for the previous 12 months}$$

- b. Total annual emissions of SO₂ from the emission units listed in SECTION B of this permit shall be less than or equal to 36 TPY for any consecutive 12-month period in order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

Compliance Demonstration Method:

Compliance shall be determined by quarterly calculations using the following equation including all emission units listed in SECTION B which emit SO₂:

$$\text{Annual SO}_2 \text{ emissions (tons/yr)} = S [\text{emission unit monthly process rate (SCC units/mo)} \times \text{KYEIS SO}_2 \text{ emission factor (lb/SCC unit)} \times \text{ton/2000 lb} \times (1 - \text{PTE control efficiency})] \text{ for the previous 12 months}$$

- c. Total annual emissions of NO_x from the emission units listed in SECTION B of this permit shall be less than or equal to 36 TPY for any consecutive 12-month period in order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

Compliance Demonstration Method:

Compliance shall be determined by quarterly calculations using the following equation including all emission units listed in SECTION B which emit NO_x:

$$\text{Annual NO}_x \text{ emissions (tons/yr)} = S [\text{emission unit monthly process rate (SCC units/mo)} \times \text{KYEIS NO}_x \text{ emission factor (lb/SCC unit)} \times \text{ton/2000 lb} \times (1 - \text{PTE control efficiency})] \text{ for the previous 12 months}$$

- d. Total annual emissions of CO from the emission units listed in SECTION B of this permit shall be less than or equal to 90 TPY for any consecutive 12-month period in order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Compliance Demonstration Method:

Compliance shall be determined by quarterly calculations using the following equation including all emission units listed in SECTION B which emit CO:

$$\text{Annual CO emissions (tons/yr)} = S [\text{emission unit monthly process rate (SCC units/mo)} \times \text{KYEIS CO emission factor (lb/SCC unit)} \times \text{ton/2000 lb} \times (1 - \text{PTE control efficiency})] \text{ for the previous 12 months}$$

NOTE: Emissions of affected facilities which are controlled by the F-134a Thermal Oxidizer are included in the Thermal Oxidizer Waste Feedstream emissions calculation and are not calculated at each of the affected facilities.

- e. Total annual emissions of VOC from the emission units listed in SECTION B of this permit shall be less than or equal to 36 TPY for any consecutive 12-month period in order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

Compliance Demonstration Method:

Compliance shall be determined by quarterly calculations using the following equation including all emission units listed in SECTION B which emit VOC:

$$\text{Annual VOC emissions (tons/yr)} = S [\text{emission unit monthly process rate (SCC units/mo)} \times \text{KYEIS VOC emission factor (lb/SCC unit)} \times \text{ton/2000 lb} \times (1 - \text{PTE control efficiency})] \text{ for the previous 12 months}$$

NOTE: Emissions of affected facilities which are controlled by the F-134a Thermal Oxidizer are included in the Thermal Oxidizer Waste Feedstream emissions calculation and are not calculated at each of the affected facilities.

2. Specific Recordkeeping Requirements:

The permittee shall maintain records of the monthly process rates for each affected facility subject to an emission limitation in Condition 1., above, except for affected facilities which are controlled by the F-134a Thermal Oxidizer.

STATE-ORIGIN REQUIREMENTS:

3. The source-wide emission rate of the following pollutants shall not be exceeded: [401 KAR 63:021, Existing sources emitting toxic air pollutants]
 - a. 69.20 lb/hr of chlorine (Cl₂)
 - b. 29.70 lb/hr of hydrogen chloride (HCl)
 - c. 16.51 lb/hr of sodium hydroxide (NaOH)
 - d. 510.99 lb/hr of trichloroethylene (TCE)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

- e. 0.51 lb/hr of calcium oxide (CaO)
- f. 2.68 lb/hr of antimony (Sb)

Compliance Demonstration Method:

The source is assumed to be in compliance with these state-origin emission limitations when the affected facilities are vented through their control devices. No other compliance demonstration methods are required at this time, but may be required in any subsequent permit.

- 4. The following emission units formerly located in the K-71 Plant shall not be operated in order to make emission reductions of Class I and Class II Ozone Depleting Substances (ODS) federally-enforceable:
 - 66 (1) Crude Condenser
 - 72 (13) R-12 Air Column
 - 88 (28) Alumina Regeneration
 - 70 (30) K-71 HCl Tails Tower
 - 25 (1) Carbon Tetrachloride Storage Tanks
 - 26 (2,3) Carbon Tetrachloride Storage Tanks
- 5. Compliance with annual emissions and processing limitations imposed pursuant to 401 KAR 50:035, Section 7(1)(a), and contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
- 6. Emissions due to shutdowns or malfunctions which temporarily exceed the standards in this permit shall not be deemed violations of such standards if the requirements of 401 KAR 50:055, Section 1, and General Condition F.6.a. of SECTION F are satisfied.
- 7. Opacity standards in this permit shall not apply during periods of startup or shutdown. [401 KAR 50:055, Section 2(4)]

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. The F-134a Emergency Vent Scrubber shall be operated and maintained in accordance with manufacturer's design specifications and recommended operating procedures. The scrubber shall be inspected annually, or more frequently as part of the permittee's routine preventative maintenance program.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements.
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement;
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]
3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
 - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
 - b. Have access to and copy, at reasonable times, any records required by the permit:
 - i. During normal office hours, and
 - ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency; and
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
 - i. During all hours of operation at the source,
 - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
 - iii. During an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the division's Paducah Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Paducah Regional Office concerning startups, shutdowns, or malfunctions as follows:
 - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than 3 days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen 3 days before the shutdown.
 - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit a written notice upon request.
 - b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Paducah Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by General Condition F.5.
7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Paducah Regional Office and the U.S. EPA in accordance with the following requirements:

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

- a. Identification of each term or condition of the permit that is the basis of the certification;
- b. The compliance status regarding each term or condition of the permit;
- c. Whether compliance was continuous or intermittent; and
- d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
- e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

**Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, Kentucky 42003**

**U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960**

**Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601**

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.
4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of

SECTION G - GENERAL CONDITIONS

any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]
15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. This permit subsumes in part permits F-97-002, issued March 28, 1997, and F-98-023 (Revision), issued November 6, 1998, and revised January 12, 2000. Permit conditions contained in F-97-002 and F-98-023 (Revision) are not applicable for any emission point listed in this permit. Permit conditions contained in F-97-002 and F-98-023 (Revision) for any emission points not included in this permit are still valid and applicable.

SECTION G - GENERAL CONDITIONS

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue.

Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Paducah Regional Office in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.
3. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be

SECTION G - GENERAL CONDITIONS

granted by the division upon a satisfactory request showing that an extension is justified.

4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements.

(e) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

(g) Risk Management Provisions

SECTION G - GENERAL CONDITIONS

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

**RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346**

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

Not Applicable

SECTION I - COMPLIANCE SCHEDULE

The permittee shall be in compliance with all monitoring and recordkeeping requirements in this permit except as specified below.

1. The permittee shall be in compliance with the following recordkeeping requirements within 30 days of the issuance date of this permit:
 - a. Q1-- Crude Gas Dryers: records of the number of regenerations each month
 - b. Q9 -- F-1122 Removal Sieves: records of the number of regenerations each month
 - c. S6 -- Emergency Electric Generator: records of monthly hours of operation and quarterly calculations of annual hours of operation
 - d. Q5 -- Thermal Oxidizer: records of the deviations from permit limitations.
2. The permittee shall be in compliance with Q5 -- Thermal Oxidizer CO monitoring and recordkeeping requirements within 90 days of the issuance date of this permit: